

# Weekly Report

8<sup>nd</sup> – 14<sup>th</sup> Jan 2018

## Done:

1. We had a short meeting on the design of prototype system (updated in the [Google Drive](#) file)
2. Discussed, and wrote the cover letter and new case study of a previous TVCG submission. 中间出现了较多插曲花费了大量时间, 本以为要推倒重来做新 case 后来发现不用.
3. Reformatted perimeter data (formats before/after 2015), learned how to use MongoDB as a backend database for a web app; Kelvin said the map module of their project can be utilized by us.
4. Skim some papers about uncertainty (collected by Annie); help Michael finish the very basic part of our prototype system.
5. Assigned some tasks for the undergraduate student.

## To Do:

1. Finish my part in the paper revision.
2. Discuss the uncertainty vis of fire detection; process the currently available data (like build some indices for easy query operations; link textual reports to fire data); Go on implementing the system/ hopefully (a) basic search function (b) some charts. The visual summary part also needs some discussion (especially the spatial relationship between events)

## Papers:

*Visualizing seismic risk and uncertainty: a review of related research*

综述性质的, 对于风险的不确定性可视化一些调研(从图、颜色、不同的 charts、动画等), 全文没图, 但是可以引用一些结论; 并且提供了评估风险可视化传递信息有效性的讨论.

*A user study to compare four uncertainty visualization methods for 1D and 2D datasets*

比较不同可视化方法对于不确定传递的用处, 其结果适合数据高度相关的. 也是给我们提供一些基本的构思.

*Clustering data of mixed categorical and numerical type with unsupervised feature learning*

对于不同类型的数据(这里主要是指类别型 数值型)混杂的数据的融合, 用了无监督特征学习(UFL) – 一种叫 Fuzzy ART 的方法, 可处理数据融合, 并能处理一些诸如数据缺失的问, 并能帮助聚类. 这个方法在一定的应用场景下, 还是比较有用的, 没用特别复杂的学习或者训练.

## 安排表

内容	DDL	Milestone
该论文	下周	基本写完

前后端学习与实现	按暂时计划是 21	实现地图一块，基本搜索， 设计实现继续同步进行
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